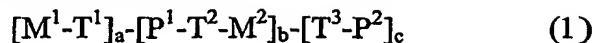


CLAIMS:

1. A compound of formula (1)



or a salt thereof,

wherein

M^1 and M^2 are the same or different and are each a metal coordination complex, wherein at least one of M^1 and M^2 is capable of interacting with a major groove or minor groove of a polynucleotide;

P^1 and P^2 are the same or different and are each a pyrrole-imidazole polyamide;

T^1 , T^2 and T^3 are the same or different and are each a linker group;

a is 0, or 1;

b is an integer selected from 1, 2, 3, 4 and 5;

wherein when b is an integer greater than 1, each P^1 , each T^2 and each M^2 may be the same or different; and

c is 0, 1 or 2; wherein when c is 2, each P^2 may be the same or different and each T^3 may be the same or different.

2. A compound according to claim 1, $a = 0$, $b = 1$, and $c = 0$.

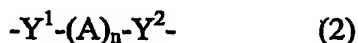
3. A compound according to claim 1, wherein M^1 and M^2 are the same or different and are individually selected from a platinum complex, a palladium complex, a ruthenium complex, and a rhodium complex.

4. A compound according to claim 1, wherein M^1 and M^2 are independently selected from $\text{cis-Pt}(\text{NH}_3)_2\text{Cl}$ and $\text{trans-Pt}(\text{NH}_3)_2\text{Cl}$.

5. A compound according to claim 1, wherein each pyrrole-imidazole polyamides (P^1 , P^2) independently comprises a plurality of heterocyclic rings selected from the group consisting of optionally substituted N-methylimidazole (Im), optionally substituted N-methylpyrrole (Py) and optionally substituted 3-hydroxy N-methylpyrrole (Hp).

6. A compound according to claim 5, wherein each pyrrole-imidazole polyamide independently comprises 3 heterocyclic rings or 4 heterocyclic rings.

7. A compound according to claim 1, wherein the linker groups (T^1 , T^2 , T^3) are the same or different and each has the formula (2):



wherein

Y^1 and Y^2 may be the same or different and are independently selected from NH , $-NH_2$, $C=O$, $C=S$, $C=NH$, O , OH , S , SH , $S(O)$, $S(O)_2$, NR^3 , NHR^3 , $N(R^3)_2$, an optionally substituted cycloalkylamine, an optionally substituted cycloalkyldiamine, and an optionally substituted heteroaryl group (e.g., an optionally substituted N-heteroaryl group such as pyridyl, phenanthrolyl, 2,2'-bipyridyl); where each R^3 is independently selected from alkyl, cycloalkyl, aryl or heteroaryl;

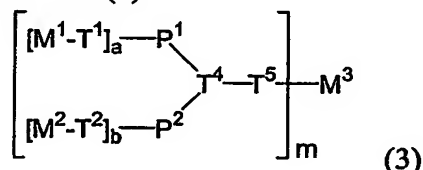
A is selected from an optionally substituted C_{1-10} alkylene, an optionally substituted C_{2-10} alkenylene, an optionally substituted C_{2-10} alkynylene, an optionally substituted C_{3-6} cycloalkylene, an optionally substituted C_{6-10} aryl, $C=O$, $C=S$, and $C=NH$, NH , O , S , NH_2 , OH , SH , $S(O)$, $S(O)_2$, amino acids, and spermidine; and

n is an integer selected from 1 to 20,

wherein when n is an integer greater than 1, each (A) group may be the same or different.

8. A compound according to claim 7, wherein each linker group independently comprises a group selected from $-NH-(CH_2)_n-NH_2-$, $-NH-CH_2CH_2CH_2-O-CH_2CH_2-O-CH_2CH_2-O-CH_2CH_2CH_2-NH_2$, $-NH-C(O)-CH_2CH_2-NH-C(O)-CH_2CH_2CH_2NH_2-$, $-S-(CH_2)_n-O-(CH_2)_n-S-$, or $-NH-(CH_2)_n-O-$, and $-C(O)-NH-CH_2-C(O)-NH-CH(CH_2SH)-C(O)-NH-$, where n is an integer from 1 to 20.

9. A compound of formula (3):



where

M^1 , M^2 , M^3 are the same or different and are each a metal coordination complex as defined above for M^1 and M^2 of formula (1), wherein at least one of M^1 , M^2 and M^3 is capable of interacting with a major groove or minor groove of a polynucleotide;

P^1 and P^2 are the same or different and are each a pyrrole-imidazole polyamide as defined above for formula (1);

T^1 and T^2 are the same or different and are each a linker group of formula (2) as defined above for formula (1);

T^5 is a linker group of formula (2) as defined above for T^1 and T^2 of formula (1), wherein one of Y^1 and Y^2 is bound to a metallocomplex M^3 and the other of Y^1 and Y^2 is covalently bound to T^4 ;

T^4 is a linker group of formula (2) as defined above for T^1 and T^2 of formula (1), wherein Y^1 is covalently bound to a pyrrole-imidazole polyamide, Y^2 is covalently bound to a pyrrole-imidazole polyamide, and wherein one Y^1 , Y^2 and A is covalently bound to T^5 ;

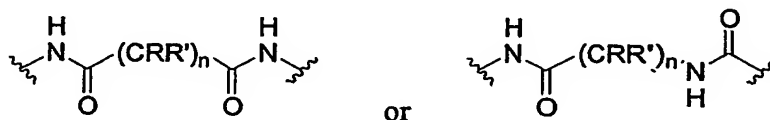
- 5 a and b are independently selected from 0 and 1; and
m is 1, 2, 3 or 4.

In one embodiment, T^4 is covalently bound to T^5 via A .

10. A compound according to claim 9, wherein m is 1 or 2.

11. A compound according to claim 9, wherein a = 0, b = 1, and m = 1.

12. A compound according to claim 9, wherein T^4 comprises



wherein n is an integer selected from 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10,

each (CRR') is independently an optionally substituted alkylene; and

15 wherein in one (CRR'), R^1 is absent and CR is covalently bonded to T^5 .

13. A compound of formula (5):



or a salt thereof,

wherein

20 P^1 and P^2 are the same or different and are each a pyrrole-imidazole polyamide as defined in claim 1;

T^1 and T^2 are the same or different and are each a linker group as defined in claim 1;

e is 0 or 1;

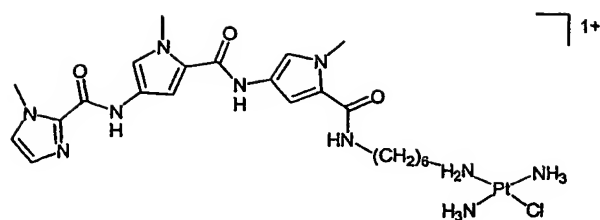
25 f is an integer selected from 1, 2, and 3; wherein when f is an integer greater than 1, each T^1 and each P^2 may be the same or different;

g is 0 or 1; and

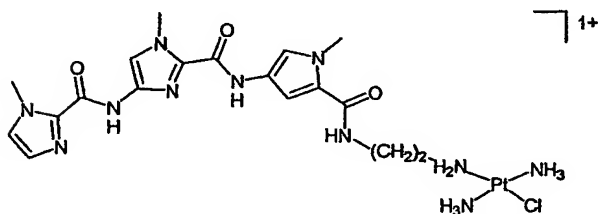
M^1 is a metal coordination complex capable of interacting with a major groove or minor groove of a polynucleotide as defined in claim 1.

30 14. A compound according to claim 1, wherein said compound is selected from

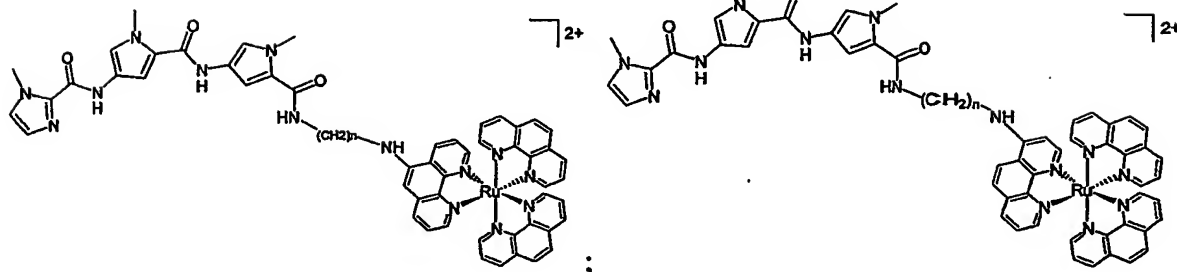
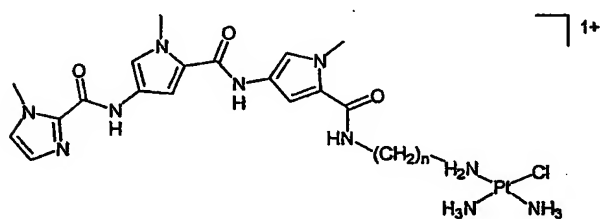
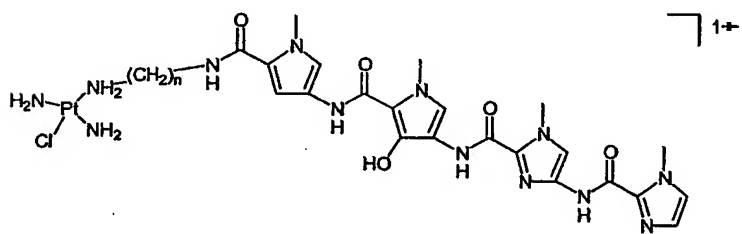
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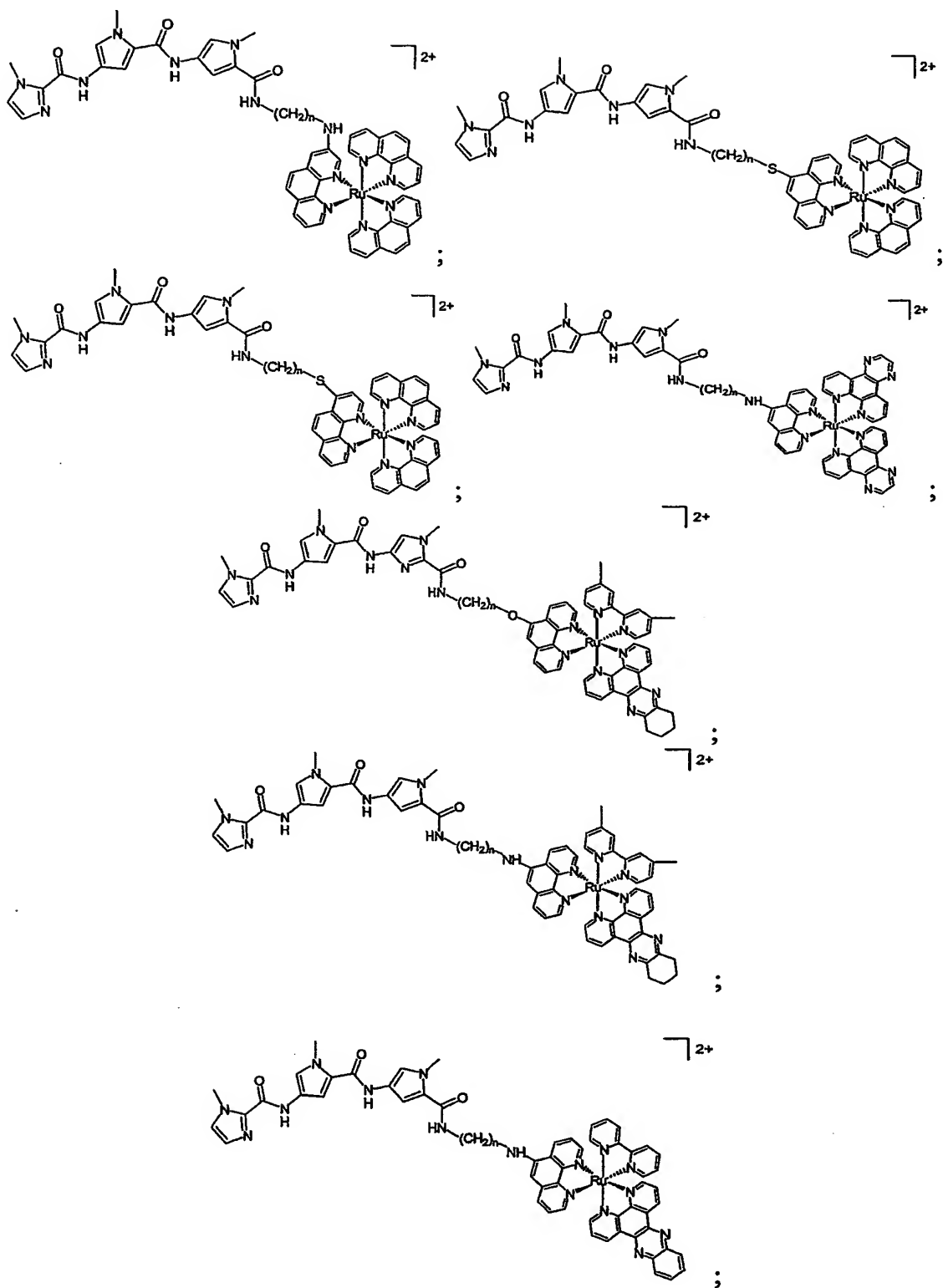
“trans-Im/Py/Py-[CONH(CH₂)₆-NH₂]Pt(NH₃)₂Cl”;



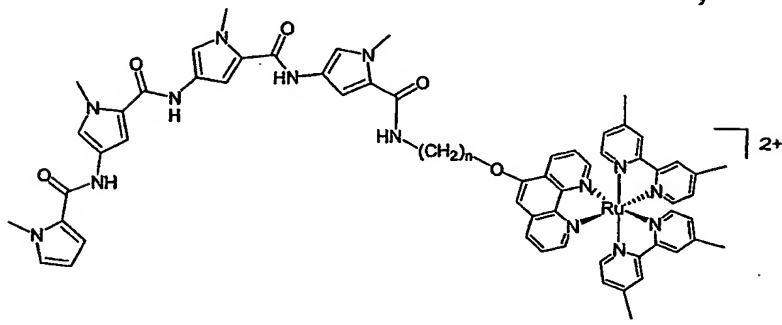
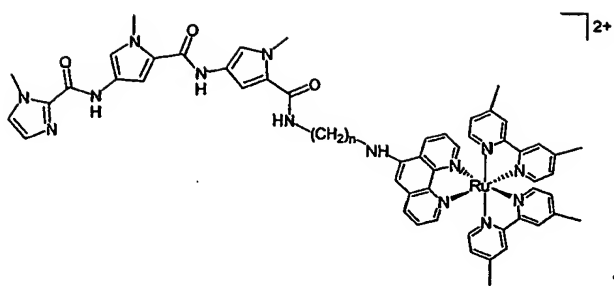
“trans-Im/Py/Py-[CONH(CH₂)₂-NH₂]Pt(NH₃)₂Cl”;



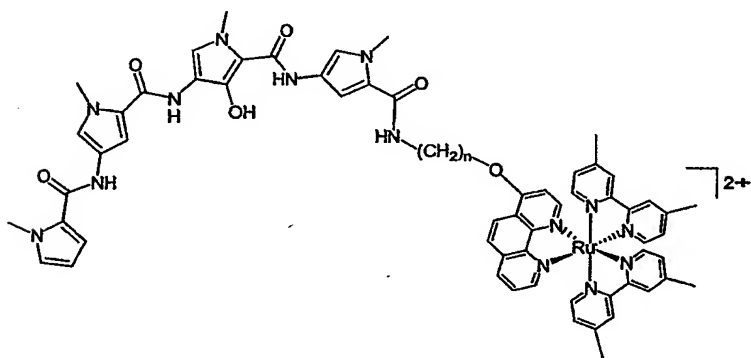
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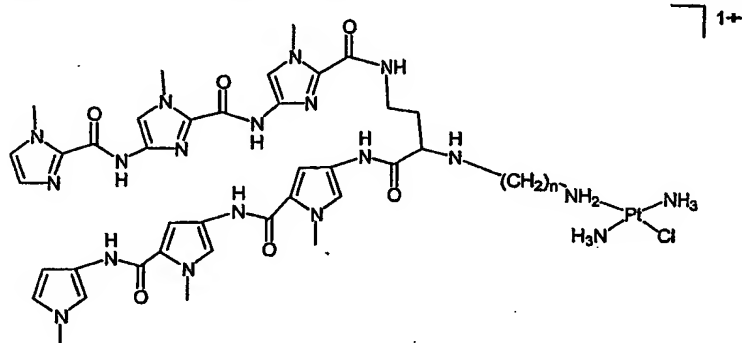


and

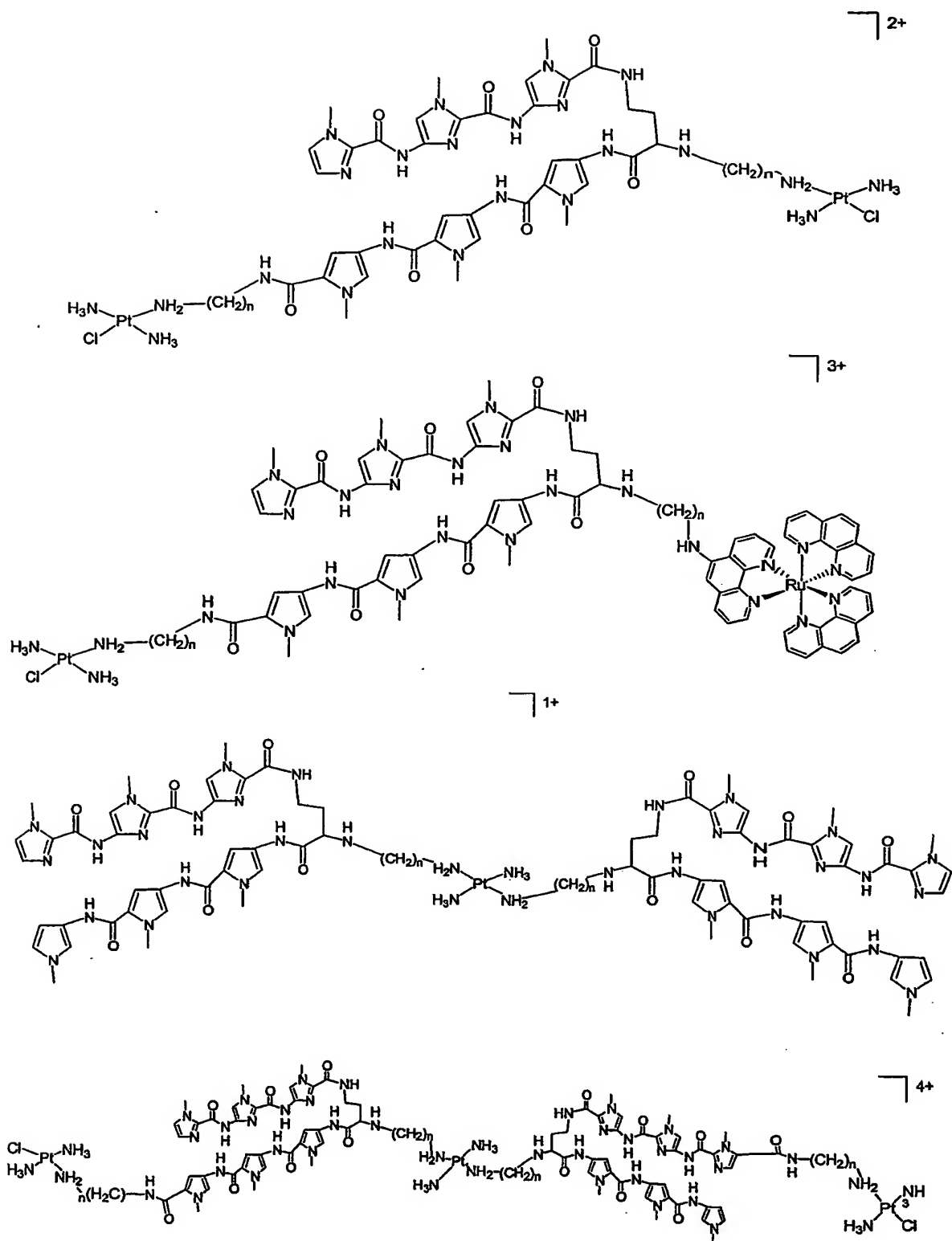


5 where n is an integer selected from 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, or a salt thereof.

15. A compound according to claim 9, wherein said compound is selected from

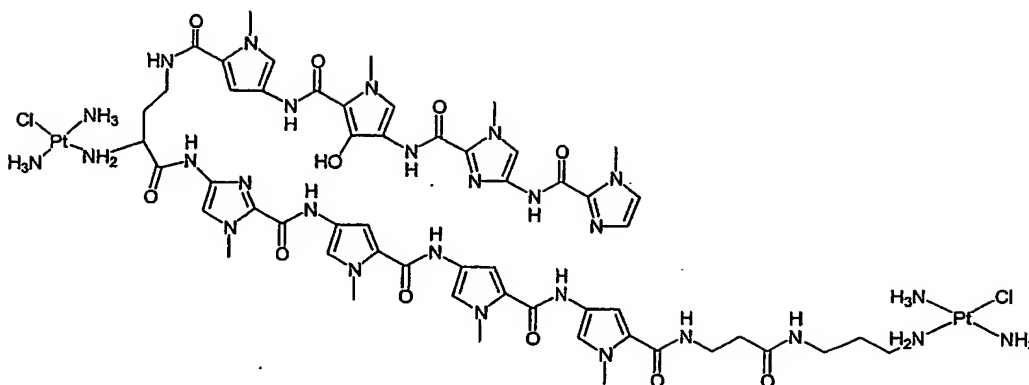


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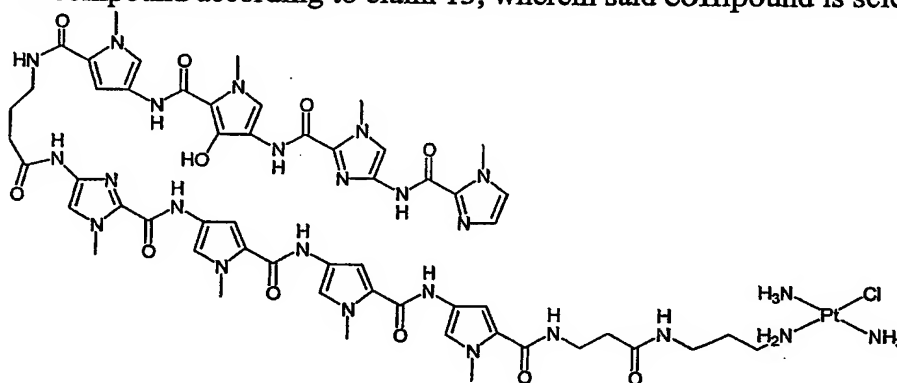
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and

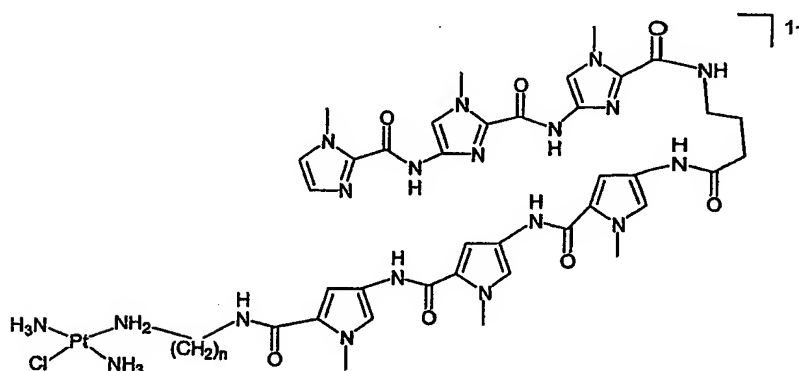


where each n is an integer independently selected from 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, or a salt thereof.

16. A compound according to claim 13, wherein said compound is selected from



and



17. A pharmaceutical composition comprising at least one compound selected from a compound of formula (1) according to claim 1, a compound of formula (3) according to claim 9, and a compound of formula (5) according to claim 13, together with a pharmaceutically acceptable diluent, adjuvant or carrier.

18. A method of targeting a therapeutic agent(s) and/or a reporter group(s) to a sequence in a polynucleotide comprising contacting biological material suspected of containing said sequence with a compound of formula (1), formula (3) or formula (5).

19. A method of treating a disease selected from cancer, HIV and Hepatitis C, said method comprising administering to a mammal in need of such treatment a therapeutically effective amount of at least one compound according to claim 1, claim 9 or claim 13, or a pharmaceutical composition according to claim 17.

20. A method of diagnosis comprising contacting a biological sample with a diagnostically effective amount of at least one compound according to claim 1, claim 9 or claim 13, or a pharmaceutical composition according to claim 17.